

## Retired FBI Agent to Explain, Demonstrate 'Defensive Tactics,' Meeting at New Location

Andrew Bugas, a retired FBI Agent, who is an expert and instructor in "defensive tactics"--the art of self defense against an attack, will be the speaker at the May 12 meeting of the PPRAA. The meeting, which will be held in a new location--the Security Savings East Building at East Platte and Union Boulevard will start at 7:30 p. m.

Bugas, who is also a veteran of 21 and a half years in the U. S. Air Force and who has also worked summers as a Park Ranger, will also demonstrate some of the basic methods by which a person may defend himself against attack, in addition to describing other methods which can be used.

In addition to teaching "defensive tactics" to other FBI agents during his time with that agency, Bugas has taught these methods to various other groups, including Civil Defense organizations.

Dean Jaynes, W0PJH, who took some of the training by Bugas while a Civil Defense group member, arranged the May PPRAA program. He suggested that some of the members might wish to bring xyls or teenage children to the meeting so that they could learn the basic means of defending themselves in case they should be the victims of an attack.

There will also be further reports on the June 19-20 Rocky Mountain Division ARRL convention and a report on the meeting of the Colorado Council of Amateur Radio Clubs held at the Arapahoe Radio Club in April.

President Rosemarie Leiws, WA0MNL, should also have a report on the success of the "on the air" meeting of the club held April 21 and George Kowalski, W0GCH, may have some information on the coming Field Day activities by PPRAA members.

-o-o-o-o-

## Convention Meals to be Real 'Gourmet's Delights'

To whet your appetites for the "repasts" planned for the Rocky Mountain Division Convention June 19 and 20 in Colorado Springs, here are the menus for two of the planned "gourmet affairs":

During the Saturday afternoon luncheon arranged by Rhea Allison, K5-WRD/0, which will also feature a fashion show staged by May D&F, the following "goodies" will be offered the ladies who attend:

Stuffed Fruit Sections Supreme  
Chicken Salad in a Cucumber Boat  
Stuffed pear Half  
Sliced Tomatoes  
Hot parkerhouse Rolls  
Coffee, Tea or Milk  
Creme de Menthe Parfait

Price for this meal, plus fashion show, plus a chance at a lot of prizes will be \$3.25, including tax and tip.

We don't have the menu for the big

(Continued on page 4)

## Ham Plate Fee Drops

A letter from Colorado State Senator Kingston Minister, dated April 19, stated that the Senate had passed the amendment lowering the price of ham vehicle license plates to \$2 in addition to the regular vehicle license fee.

## Programs, Events Readied for Rocky Mt. Div. Convention in Colorado Springs June 19-20

Plans are being finalized for the 1971 Rocky Mountain Division ARRL Convention, to be held at the Antlers Plaza Hotel in the center of Colorado Springs June 19 and 20 under the sponsorship of the Pikes Peak Radio Amateur Association, according to Ed Pompea, K0ZPG, program chairman for the convention.

"We will have programs, contests, prizes, displays and other events which will make this one of the greatest conventions ever held in the Rocky Mountain Division," Ed stated. "It will rival the 1966 Rocky Mountain Division held here under PPRAA sponsorship, which the visitors at that time said was one of the best ever held in the Division."

Events presently planned for the convention include: New antenna design presentation, Amateur slow scan TV, an ARRL open forum, a Wouff Hong Initiation on Saturday midnight, an FM repeater display, a traffic net session a meeting of the Colorado Council of Amateur Radio Clubs, a meeting of the Colorado XYL club, ARSPC/RACES discussions, Army-Navy-Air Force MARS sessions, RTTY demonstrations, discussion of computers for Amateur radio, a ladies' luncheon and fashion show, WHF and FM sessions, a swap and shop loaded with bargains (bring your surplus equipment) and prizes, prizes!

The convention proceedings will be held on the first floor of the Antlers Plaza Hotel, in the large ballrooms, with additional meetings being held in rooms on the fifth floor of the hotel. A meeting of ARRL officials will be held Friday evening, June 18, and PPRAA members will be busy making final arrangements, dealers and manufacturers busy setting up displays and final check being made to be sure everything is in order for the big two days of the convention.

At 12:30 p. m. Saturday the ladies attending the convention will have a luncheon and fashion show in the Colorado Room of the hotel with many prizes to be awarded at that time.

A special Saturday night Chuck Wagon steak dinner will be a Saturday feature of the convention, held at the famous Garden of the Gods which fascinated so many attendees at the 1966 convention. John Kester, WA0LVL, is in charge of this feature he has promised steaks "hot off the grill" with a lot of good Western entertainment during the meal. The chow line will form at 6:30 p. m., with Eldon Lewis, WA0-ERA, assisting John.

"Everyone should have a good time," state John and Eldon. "The location can't be beat."

The Sunday banquet will be at noon in the Antlers Plaza Hotel, with prizes being awarded at that time. The main prize will be awarded only to a licensed amateur radio operator.

There will be plenty of parking for the convention, with covered parking facilities for 900 cars available in the lower level of the hotel. Parking rates are \$1 from 6 a. m. to 7 p. m. and those persons staying at the hotel will have a special rate--24 hours, in and out, for \$1.75.

Preregistration for the convention (prior to June 1) is \$4, with registration at the door during the convention \$5 per person.

Prices for meals are: Ladies' luncheon and fashion show \$3.25; Chuck Wagon dinner \$3.50 and Sunday banquet \$3.75. Tickets for these affairs may be ordered during preregistration or obtained at time of registration.

For preregistration, write or see Bill King, W0LKD, 2916 N. Institute, Colorado Springs 80907.

The Pikes Peak Radio Amateur Association, long famed for its hospitality during conventions and other amateur radio events, promises to outdo itself at this convention--don't miss the big event of the ham year!!

The FM repeater display during the convention will be by the Pueblo Ham Club, one of the pioneers in repeater operations in Colorado and which, in cooperation with ARRL, is doing much in the field of developing FM repeaters. And we almost forgot to mention that among the contests will be high-speed and left-footed CW contests, with good awards for the person or persons who can show in the contests that he or she is the most adept at this.

You'll have an opportunity to hear good discussion, good speakers and see new equipment--don't miss it!!

## ZERO BEAT

Published monthly in the interest of the members of the Pikes Peak Radio Amateur Association, Inc., Colorado Springs, Colorado

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### EDITORIAL

## Be Sure of the Laws - and Receiver

It is sincerely hoped that none of the members of the PPRAA or any of the other readers of Zero Beat have been either ignorant or discourteous enough to engage in a practice which prompted the following editorial written by WB6MDT for the EBRC "Blown Fuze" and which we are, in turn, reprinting from the Central California Radio Council "Circle."

Admittedly, especially when we might have "snared" a long-desired DX contact or contacted a ham whom we have wanted to work for some time, it might be rather easy to forget that we and the station we are working are not the only ones on the air--but we must remember at all times that the possession of an amateur operator's license does not, by any means, mean also the "sole possession" of all frequencies.

The very pertinent editorial by WB6MDT is as follows:

"The possession of an Amateur license presumes a certain basic knowledge of the law as well as certain technical skills for proper operation of gear. These two items will prevent the following situation that recently came to my attention.

"One of the Novices in our Club, who puts out a potent signal by virtue of his location and the excellence of his equipment, was rudely told to 'get off the air' by a couple of general class operators. He did.

"The point of this editorial is that none of these operators had either the required knowledge of the law nor the technical skill to recognize that:

"(1) No one has an exclusive to the ether,

"(2) That blanking of one's receiver by a strong signal is a receiver front-end overload problem and not a transmitter problem.

"Thus, as a result of mutual ignorance of the law and technology, a legitimate operator was deprived of his right to operate and enjoy his hobby. The offending operators not only violated the law, but perpetuated their lack

of radio 'know-how' by solving their receiver overload problem with the intimidation of a new operator instead of learning how to attenuate strong incoming signals.

"I recommend a periodic review of the FCC Rules and Regulations which one should have in his shack, and constant study and review of books and magazines on the subject of amateur radio.

"Don't let your license become a death certificate for the advancement of your knowledge."

We hope that after reading this all Zero Beat readers will remember that, as one part of this editorial states: "No one has an exclusive to the ether." Be an aid to those getting their start in the hobby of amateur radio, not a discourager.

-o-o-

Ralph V. "Andy" Anderson, KØNL, who, with the April 1971 issue of Auto Call, publication of the Foundation for Amateur Radio, comprised of 25 radio clubs in the Washington-Baltimore-Delaware-Virginia area, after 18 years and five months, has passed on the editorship to Ethel Smith, K4LMB, certainly deserves commendation for that long a period of editing a radio club paper, as anyone who has ever edited one can well testify.

We, who complete five years of editing Zero Beat with this issue, can well make such a statement--many are the times during that period, "sweating out" information on meetings, waiting (sometimes not too patiently, we'll admit) for other promised material and working very late nights (and struggling to our regular job the next morning) in order to get Zero Beat ready for the printer, we have told ourselves "It's not worth it--give the job to some other person to struggle over." But like Andy we've kept plugging away.

Although we have received Auto Call for only slightly over a year since we became a member of Amateur Radio News Service (ARNS), we have always



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found it very interesting and informative and the source of some of the material we have reprinted in Zero Beat. We can, therefore, well judge that his past efforts on Auto Call have been equally as good.

Incidentally, Andy is also editor of the "ARNS Bulletin," a publication which goes to each member of ARNS and the "Jubilee Issue" which contains the results of the annual ARNS contest (in which we were fortunate enough to win an award for editorials last year) goes to each radio club. He will continue with that job, so fortunately we won't entirely lose contact with him.

-o-

One thing that is needed to continue Zero Beat in its present new attractive form is some more advertisers. It costs more to have it printed in this form and more income is needed to prevent a drain on PPRAA funds if we are to continue it in this manner.

Time has proved that the approximately 200 copies of Zero Beat each month are a good "advertising medium. Our advertisers have so informed us. Through it, advertisers of radio equipment and other services can reach a good bunch of readers and buyers--thus benefitting themselves as well as aiding the club as well as benefitting themselves. Many of you have a business or have friends who have businesses that would benefit by having Zero Beat as a means of announcing their services or wares to its readers.

How about some help in this line, as well as submitting articles on local radio activities to help fill Zero Beat?

---Frank, WØHWH

## ROSIE'S REPORTINGS

By Rosemarie Lewis, WA0MNL

WA0YNP, Mory Wunderlich, is the new assistant manager of CCN (Colorado Code Net), which meets at 0130Z on 3675 Kc each evening.

-rr-

WA0CND, Laurel "Bonnie" Bon-durant, is recovering from a broken shoulder as the result of a snowmobile mishap.

-rr-

K0ZPE, Jack Connelly, suffered injuries when he was involved in a mishap while going to the transmitter site on Methodist Mountain! While in the hospital, fellow amateurs loaned him 2 meter FM equipment and when he improved they loaned him gear to work on, all to help speed his recovery. Sure nice to have a ham doctor who understands all the needs for recuperation.

-rr-

K0SLN, John Felix, is getting good reports from his 200 miliwatt home brew rig. He's worked Washington and Illinois and other states. It's battery powered and the whole outfit can be carried in one hand.

-rr-

A big "thank you" to W0MRG, Harold Swafford, who donated a code sender and keys to Civil Defense. W-A0HHN, John Summers, is using them in the Tuesday evening code class.

-rr-

Would you believe that there are six amateurs by the name of Bill on 2 meter FM? Instead of CQ, just a "hey Bill" got an answer. Bill Risch, K0-MVH, has left the area for Mississippi to attend some schooling.

-rr-

When WA0HHO / ZL3HQ, John Summers Jr., decided to go CW in a QSO with his dad, WA0HHN, John Sr., he made a key from a paper stapler, using a thumb tack for the contact. It worked great, too.

-rr-

W0HWH, Frank Caw, had to get the May Zero Beat ready a bit early as he turned into the Fort Carson Hospital for surgery on April 28. He hopes to be out in time to mail Zero Beat while convalescing at home and on his feet in time for the May meeting.

-rr-

Two hams were discussing the stability of a receiver. Ham #1 found that when he hit the set with a hammer, it shifted 1.049 kc. He asked Ham #2 how to improve the situation, to which Ham #2 replied, "Use a smaller hammer--stupid!"

-rr-

Don't forget that next month is the "big moment" for PPRAA--the chance to show hamdom that we can stage the "biggest convention ever."

## WA0SIG Works DX On Police Radio

( From the Colorado Code Net (CC-N) Bulletin comes this bit of news from Max Cornell, WA0SIG, who is a member of the Colorado State patrol--stationed in Frisco)

"The most interesting thing I can offer the net bulletin is about my working DX on the State Patrol radio system. My patrol car has two radios, one just above two meters and one just below six meters. One winter night, while patrolling the west side of Loveland Pass, I heard a signal saying 'Any car west side please answer.' I assumed it was a call for me. I answered and was told to fix the traffic light at Hollywood and Vine. Boy, was

I confused! I was talking to the maintenance dispatcher in Los Angeles on six meters.

"Also on Christmas Eve all the State Patrol cars received an All points Bulletin for Santa Claus. The radio is the only contact we have with the outside for eight hours; so a little humor sure helps.

"With our 100 watt units, we can work about forty miles line of sight-- Other times, when mountains intervene, one mile is pretty good. These units can be retuned easily for two meter FM use, but cost a whole bunch. Believe it or not, though, the Regency Scanners are more sensitive."

## More 'Rosie's Reportings'

W7JMG, Nip, sends greetings to all his friends here and says congratulations to the club for planning such a nice convention. He may have to have eye surgery and is sorry to have to miss it. He sent some pics of earlier days of Amateur Radio here--the pic of him as a dapper young man with a beard is worth a trip to the convention to see.

-rr-

The June issue of Zero Beat will carry a story of Amateur Radio in this region through the years. W0MCT, Doc Cornell, promises to write it.

-rr-

W0GBX, Butch Schisler, is in the Penrose Hospital with pneumonia.

-rr-

WN0EIA, Charles King, placed second in state electronic competition at Fort Collins. Charles is a junior

at Palmer High School and the teacher of the electronic program is K0LZD Ron Seats. Congrats to both and also to Charles' parents, W0LKD, Bill, and XYL Ann.

-o-o-o-

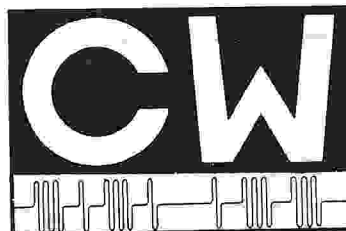
FOR SALE--EICO Model 720 CW transmitter 90 watts. Bought used from CW Electronics and has never even been plugged in. \$45 Steve Kaplan 471-4909

-o-o-o-

Don't forget the PPRAA meets at a new place May 12. You'll be pretty all by yourself if you go to the old one.

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The optimist proclaims that we live in the best of all possible worlds; and the pessimist fears this is true.-- James Branch Cabell, 1926.



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## PRESIDENT'S NEWS

It wasn't mini or maxi but it came out in new style . . . the Spring issue of Zero Beat. Everyone likes it and WØHWH, Frank, and KØZPG, Ed, deserve a vote of thanks, as lots of hard work went into getting it set up. But the future issues should save work. The April issue also had articles from several persons, the club appreciates your support of our paper and we thank you.

When you read this, Frank, our editor, should be home from the hospital recuperating from surgery. Drop him a line. (Better yet, send me an article or articles for Zero Beat, and don't stop with the submission of one of them--Frank)

This May issue brings us close to convention time and the committee has a great convention planned. Make plans to attend.

We have some priceless pictures

\*\*\*\*\*  
\* SORRY, NOTHING ON CCRAC \*  
\* Oak stockton, KØROL, had prom- \*  
\* ised to have a story to us on the \*  
\* activities at the Colorado Council \*  
\* of Radio Clubs meeting at the Ara- \*  
\* pahoe Radio Club Saturday, April \*  
\* 17. However, at the time we had \*  
\* closed out Zero Beat before we had \*  
\* to turn into the "hospital for some \*  
\* surgery, we had received nothing \*  
\* from Oak, so we can't tell you what \*  
\* went on at that meeting. - Editor. \*  
\*\*\*\*\*

Now is the time to start planning what you, as a PPRAA member, can do to help make next month's convention "the best ever." Offer your valuable services at the May 12 meeting.

and stories from the olden/golden days of Amateur Radio in this region. These will be on display at the convention.

Twenty seven people braved the QRN/QRM and a woman president "anchor man" to check in to the "meeting on the air" April 21. Conditions were poor for the first 40 minutes or so. I hope I didn't slight anyone and I really appreciated the support. Shall we try it again soon? Maybe instead of a formal type meeting we could have a rag chew.

Last, but not least, don't forget the May 12 meeting at the new location, Security Savings and Loan Co., at East Union Boulevard and Platte, 7:30 p.m. The program will prove of benefit to the whole family and WØERA, Eldon, promises to brew up some refreshments (coffee, that it).

73 Rosie, WØMNL

### Are You An Artist?

### We Can Use Your Talent

If there are any of our readers who have artistic talent, or think they have such a potential and would like to try it out, we would be happy to, with our present method of printing, receive any artwork, especially in the way of cartoons with a "ham radio flavor."

If you are not sure, the suggested cartoon can be submitted in pencil form for approval, but the final cartoon for printing must be done in ink--preferably black India ink.

Come on, some of you artists or would-be artists--give us some art material to help "dress up" Zero Beat and make it more attractive.

## Convention Meals

(Continued from Page 1)

Chuck Wagon Dinner Saturday night, arranged by John Kester, WØLVL and Eldon Lewis, WØERA, but have been assured it is something that you who attend the convention "won't want to miss." In addition, following the meal in the Garden of the Gods that follows as closely as possible the meal as served on the old cattle drives in the West, crowd pleasing entertainment will be the "order of the evening."

Price of this meal and entertainment will be \$3.50.

The big Sunday Antlers Plaza Hotel banquet which will close the convention activities, starting at noon, at which in addition to a fine meal, many will have the chance to walk away with a prize, and all will have the opportunity for eyeball QSOs with other hams from the Rocky Mountain Division area and other areas who attend, the following menu will be served:

Melon Balls Supreme (ay Corntreau)  
Breast of Chicken, Hawaiian  
Polynesian Rice  
Cherry Tomatoes  
Chinese Pea Pods  
French Pastry  
Beverage

The price for this "festive board" will be \$3.75.

Even without all the other contests, displays, discussions, and other features of the convention, these should be sufficient in themselves to assure that you attend the fine convention!

-o-o-o-o-

In the Denver Radio Club's "The Round Table," Chic Cotterell, WØSIN who combines his editor's job with being the Director of the ARRL Rocky Mountain Division (and will probably be playing a big part in our convention at the Antlers Plaza Hotel next month, makes these observations:

"Armed Forces Day Communications tests will be conducted this year on 15 May. The Army, Navy and Air Force will have stations on the air to contact hams as usual. Lowest frequency will be 4001.5 kHz (whoops NS S will be on 3385 kHz CW) and will run up into the VHF bands.

"The ARRL Member's Guide to the U. S. Ham Bands has just been received. Very handy but soon may be dated.

"Over 500 Division questionnaires have been returned and as a guess a pretty fair majority will favor the FCC's proposed band changes. Also most would ante up a dollar more for League membership. A great many feel concerned, as do I, about the newcomer and the retiree on a limited income."

(Thanks, Chic, for filling up some Zero Beat space that a couple of PPRAA promised to do but failed completely to do. ---Frank, WØHWH)

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# UNDERSTANDING TRANSISTORS

By Jim White WB6RAG

(From the Tulare County (Calif.) Radio Club "Grid Leak"  
via the Central California Radio Council "Circle")

## LESSON 21

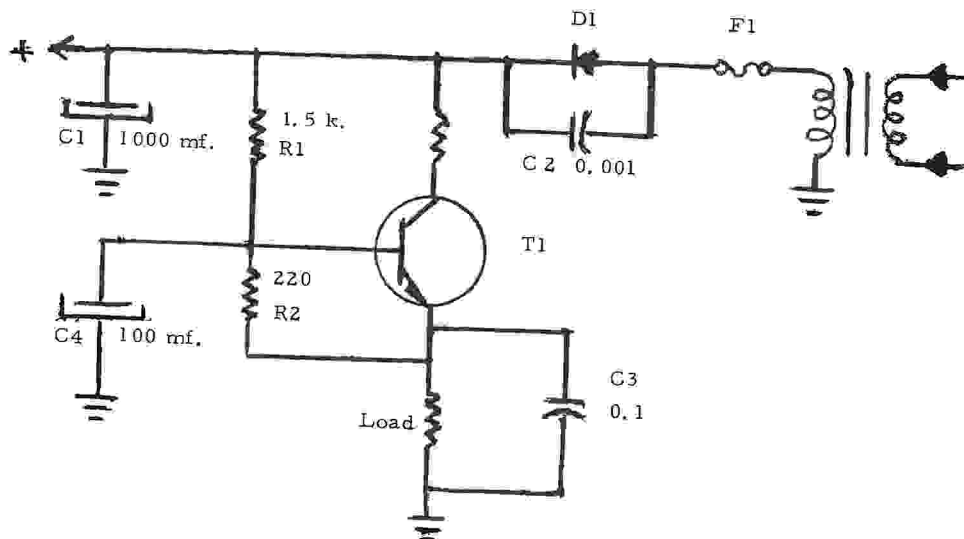
### VOLTAGE REGULATOR AND ELECTRONIC FILTER POWER SUPPLY

The purpose of this particular circuit is to provide a relatively constant output voltage under varying load conditions and at the same time filter the half-wave rectified pulses.

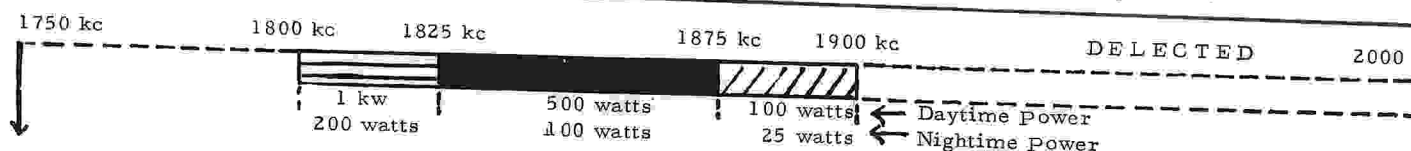
The signals fed into the transistor T1 collector are half-wave rectified DC voltage. The AC supply is half-wave rectified by D1 and filtered by C1. F1 is a fuse normally formed by a chemical composition designed to protect transistor T1 in event of a short developing on the load side of the transistor. C2 is the radiation preventive measure placed across the half-wave rectifier whose value is normally .001 micro-farads.

Transistor T1 obtains its bias from two resistors, R1 and R2, and its action is that of a Class A amplifier and its action is such that the hundred micro-farad (100 mfd) in the base circuit of T1 effectively is multiplied by the beta or DC current gain of the transistor. Thus if the beta of T1 equals 100 the effective filtering capacity of this circuit would be 10,000 mfd.

Regulation is obtained to some degree due to the fact that the load of the



circuit is the emitter resistor of the transistor and as the load resistance decreases, the emitter tends to go negative, thus causing increasing forward bias and heavier current through T1 which tends to stabilize the voltage across the load. C3 acts as a radio frequency ground return which is normally required since the inductive reactance of the electrolytic capacitors C1 and C4 do not provide good AC at high frequencies.



160 Meter Phone Band Changes Effective May 1, 1971

(From Central California Radio Council "Circle")

## Heard on the Party Line

BY CHARLIE VORDERBERG  
W0CGT

(Reprinted from "Auto Ca'l"  
of the Foundation for Amateur  
Radio)



An OM, said to be somewhat of a cynic, recently said of his XYL, "At the end of the net operation she was so tired she could hardly keep her mouth open."

We have never seen it to fail. Now that the ice and snow is off the roof and we can climb up there to make repairs, the antenna is working just fine again.

We have been attending hamfest for almost twenty years now and we finally struck it rich. We won a novice crystal for forty meters.

We have been having a problem, trying to ground our rig until recently. A neighbor solved it with one word. "Well..."

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## AMATEUR RADIO TRAFFIC NETS

(This is the second of a series of articles on Amateur Radio Nets, their functions, how they operate and how to participate in them, written by Loren "Bud" Thompson, W0CRN, Colorado Route Manager. The series will be available in pamphlet form later this year.)

By now you have monitored one of the NTS CW net frequencies and are still puzzled! QND - QNI - QNK - U7 ? ? What does it all mean?

A wise man once said: "The way you can tell the difference between a phone net and a CW net is . . . if it lasts longer than 20 minutes . . . it is a phone net!"

Two fundamental mode characteristics are responsible for the apparent efficiency of CW nets: (1) use of "Q" signals, and (2) break in operation.

All CW nets use "Q" signal abbreviations to some extent. A training net will use but a few and still may have to explain some of them in plain text. On a regional or area net the NCS may conduct up to 40 per cent of his directive actions by the use of "Q" signals and other abbreviations. In addition to the "standard" international "Q" signal set, NTS CW nets use a group of 26 "QN" signals (QNA, QNB . . . QNZ). These have been designed especially for directive actions on NTS CW nets. Actually, only a few are regularly used:

QNA - Answer in prearranged order, or I (NCS) am looking only for the following station . . .

QND - This net is directed (has an NCS).

QNF - Net is free (over).

QNI - Report into net or I report into net.

QNK - Transmit message(s) (for . . .) to . . . (station).

QNR - Receive traffic (for . . .) from . . . (station).

QNX - You are excused from net.

QNZ - Zero beat your signal with NCS.

The following is an example of a Colorado Code Net call up: K0ECR is NCS.

CCN CCN DE K0ECR K0ECR CCN CCN DE K0ECR K0ECR CCN CCN COLORADO CODE NET DE K0ECR K0ECR CCN CCN QND QNZ VVVVV DE K0ECR K0ECR CCN QNA STN FROM TWN DE K0ECR (WA0ZWA is the CCN representative who went to TWN the night before and checks in with messages he received there.)

K0ECR DE WA0ZWA FROM TWN QTC 1 DEN AA 2 CO SpGS AA 1 GRAND JUNG K WA0ZWA DE K0ECR R AS (wait).

CCN QNA STN TO TWN DE K0ECR BK (WB0CQJ is the regular "to TWN" representative for this evening, and checks in, also listing some traffic.)

K0ECR DE WB0CQJ TO TWN QTC 1 K0ECR K

WB0CQJ DE K0ECR R AS

CCN QTC? DE K0ECR BK (NCS is inviting in only those stations with traffic to list to check in. Stations without traffic should stand by).

(WA0YNP has 1 message going to TWN and checks in:)

BK (WA0YNP)

BK (K0ECR)

K0ECR DE WA0YNP QNI QTC 1 TWN BK

WA0YNP DE K0ECR R QSY U7 QNK TWN WB0CQJ K (This instructs WA0YNP to move up 7 kHz and send his TWN traffic to WB0CQJ, the "to TWN" representative. Both YNP and CQJ will signify understanding by sending R OR OR GG (going), and then move off

or GG (going)!) and then move off the net frequency to pass the traffic. NCS continues calling net).

CCN QTC? DE K0ECR

BK

BK (K0ECR)

K0ECR DE K0MNQ QNI QTC 1 TWN BK

K0MNQ DE K0ECR R DN 7 QNR 2 DEN WA0ZWA K

R (K0MNQ)

GG (WA0ZWA) (and the two of them QSY down 7 kHz to pass the Denver traffic that ZWA picked up on TWN the night before.)

CCN QTC? DE K0ECR (No answer - there are no new stations standing by to list traffic).

CCN CCN QNI DE K0ECR (NCS is now inviting check-ins without traffic).

BK

BK (K0ECR)

K0ECR DE WA0MNL QNI QRU K WA0MNL DE K0ECR R D7 QNR 1 CO SpGS WA0WZA AFTER K0MNQ K

GG (WA0MNL) (MNL has checked in without traffic and NCS has sent her down 7 kHz where MNQ is receiving the 2 DEN from ZWA. MNL will wait there until MNQ is clear then receive the CO SpGS from ZWA).

CCN QNI DE K0ECR

These are examples of exchanges that take place in getting a CW net under way. Once each member has completed all his business, the NCS excuses him from the net.

WA0MNL DE K0ECR QRU QNX K

K0ECR DE WA0MNL R SK

It is generally understood that no single station will be held in the net for longer than 15 minutes after he first checked in. Exceptions to this may occur when the traffic load is heavy.

When all net business is completed,

## THE HAM'S TEN COMMANDMENTS

(From "The Atlanta Ham," via the "ARNS Bulletin")

1. Thou shalt have no other hobby but radio.

2. Thou shalt not transmit unto others signals thou canst not ready thyself.

3. Thou shalt love, honor and obey the F.C.C., that thy days as a Ham may be lengthened.

4. Thou shalt not covet thy neighbor's beam, nor his final, nor his DX, nor his YL, nor anything else that is his.

5. Thou shalt not screw down thy gear, lest thy neighbor take offense at thy insinuation; rather shouldst thou keep a keen eye on thy neighbor.

6. Thou shalt not, when emergency comes upon thy neighbor, withhold thine assistance.

7. Thou shalt not jam thy fellow ham's signal, lest he should jam thine.

8. Thou shalt not take offense at thy harmonics, and descend lustily upon them, ere they crawl down thy neighbor's antenna and snow his TV.

9. Thou shalt keep ever the Amateur Radio Operator's Bible at thine elbow, whence shall thy knowledge of radio improve.

10. Difficult as it may be, thou shalt ever consider a BCL, even a CB'er, as a human being, dealing with him by tact and diplomacy.

-0-0-0-

Hope none of our readers get into the "jam" reported from the ARALB "Observer" by the "W0SD Carrier."

"From the Council of Radio Clubs meeting we learn that the FCC has caught W6BTN deliberately trying to jam the WESCARS net. He has also been known to use language not permitted by the amateur rules and regulations. The FCC wants to permanently lift his ticket (it has been suspended before (and is asking that letters be written to the Secretary of the FCC with your comments on the matter. In other words, if you want to help the FCC (and yourselves) to get rid of a joker like this, now is your chance."

the NCS will declare the net frequency free.

CCN QNF DE K0ECR SK

It is obvious from the above example that a CW net can increase its efficiency due to being able to occupy several spots on the band simultaneously. A busy area net may have as many as 8 pairs of stations off the net frequency passing traffic! Were it not so crowded in the phone bands, phone nets

(Continued on page 7)

## Nikola Tesla, an 'Electrical Genius'

This is the second half of an article on the electrical genius, Nikola Tesla, who did much of his experimental work on AC in the Colorado Springs area. The first part of this article, written by George F. Brumley, originally appeared in the Oakland (Calif.) Radio Club paper and was reprinted by the Central California Radio Council "Circle," from which we are reprinting the article. This is the conclusion of the article - Editor)

High altitude mines were running out of fuel for steam power but had lots of resources. Consequently the AC team tossed its chips on the table for an all-out gamble. A dam was built and a six-foot water wheel powered a 100 hp, 133 cycle singlephase motor. The wheel operated under a 310 foot head and the motor was located at a mill 2.6 miles away. While the installation and trials were supposed to be kept secret, a technical magazine published the story and of course everybody watched with interest.

By trial and error, the plant was finally put into operation and it ran continuously for thirty days after its initial start. . . the operators admittedly afraid to shut down for fear of not being able to start up again!

There was not only the problem of devising equipment but of manning the station with workers who knew how to handle it. When a line was to be broken with the power on, an operator took hold of a plug and pulled it out--and the arc still held for several feet back! Early instruments resembled an assayer's balance. They had no watt meters. Transformers up to this time had been rated in "lights."

At any rate, it was considered successful and confidence in the scheme was enormously enhanced.

Although Tesla gained dozens of patents and made millions for his supporters, there were so many ideas in his head that it was obvious that he couldn't develop all of them. He had plans, for instance, to transmit power without wires. He could send heat to the North Pole, ice to the tropics--music and pictures through the air.

He was a great showman and gave demonstrations with himself as a subject showing sparks and glowing with electric current. Once he ordered a steel chain link two feet long and two feet thick. After calculating the resonant frequency of the mass of metal, he fastened a small vibrator to it and broke it with a fusillade of taps, none of which could have harmed a baby. He stated he could split the earth the same way.

Most of Tesla's supporters grasped the scope of his ideas but recognized the futility of a Utopian scheme in a utilitarian world. As time progressed, a vague conviction grew among these

people that Tesla favored extending knowledge above accruing money for his backers. Soon they began to ignore him and he became somewhat of a recluse.

On January 6, 1934, after a day at the office working with an assistant on an experiment, he returned to his home on the 33rd floor of the Hotel New Yorker. He had been slightly ill during the day and passed away alone and quietly during the night of the 7th.

Engineers and scientists were allowed to look over Tesla's papers but nothing of technical value could be found. He was noted for an uncommonly fine memory and apparently took his unresolved ideas to the grave.

-o-o-o-o-

(From the Pueblo Ham Club "Grid Leak")

"Our friends at Mountain Bell would like everyone in the world to think that DDD stands for nothing but Direct Distance Dialing. Well friend, it ain't so. It also stands for Displaced Diathermy Dodger, and therein lies a story.

"Away back when, there was a ham band known as 11 meters. There were so many Diathermy machines radiating therein and such signals drifted and buzzed (probably sounded about like it does today) and the hams had to dodge in order to maintain a QSO.

"In September of 1958, Uncle FCC declared another use of 11 meters and the diathermy dodgers took a vote and decided to move to a little used portion of the 10 meter band, and picked 29.4 as the gathering point.

"Our thanks for this info go to "Sam: W1MGP. - Sorry we had to cut it so short, but we ran out of room."

## RADIO TRAFFIC NETS

(Continued from page 6)

could use the same technique. (Some do, and with various levels of success).

Now that you know what is going on with all the abbreviations, how do you, a greenhorn-newcomer, get into that first CW net? Here are some guidelines to follow:

1. Try the local section net first, not a region or area net.
  2. If possible, have a copy of the QN signals in front of you.
  3. Have the rig tuned up prior to the net meeting time.
  4. Wait until after NCS has called for general check-ins (QNI) and received no other replies.
  5. After one of these calls, simply send BK.
  7. Send his call followed by DE and your call followed by QNI QRU BK
  8. Unless the NCS knows you he will undoubtedly ask you your name and QTH, which you should be prepared to give him. Keep it short - he knows it is your first time, he will give you all instructions in plain text.
  9. Do not send CW at a speed at which you cannot copy replies.
  10. If you are asked to receive a message for delivery in your town, -- simply copy what is sent and see if you can make sense of it.
- Experience has shown that it takes only about two weeks of checking in three or four times a week to become an experienced CW net operator. If you only have one or two nights a week to work on it, that savvy will take about a month to develop. Give it a try tonight!
- (Next month - Phone Net Procedures).

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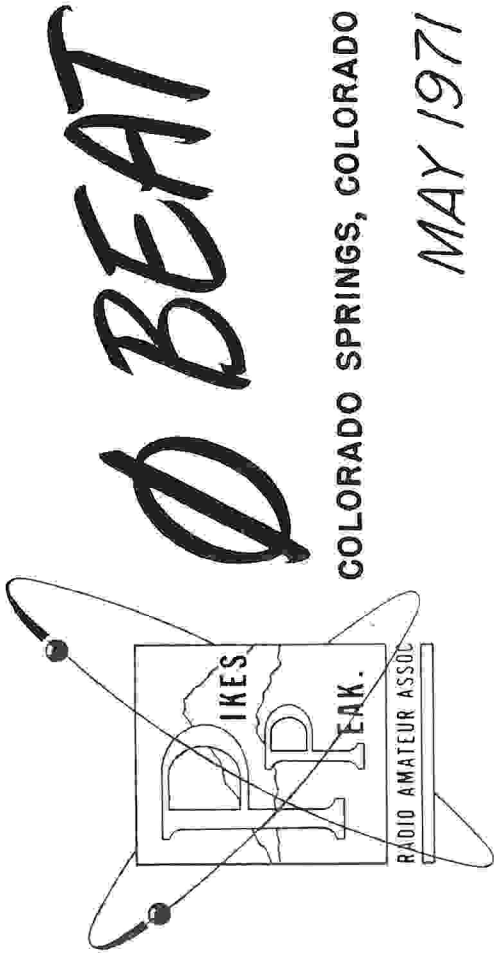
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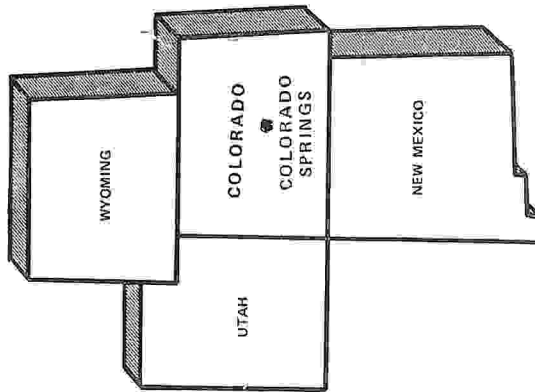
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